

**NBEMS**  
**Software...**  
**2014 Winner**  
**of the ARRL**  
**Technical**  
**Excellence**  
**Award!**

## The Wellington Radio Club Guide For The Installation and Configuration Of PBC Basic NBEMS... **NARROW BAND EMERGENCY MESSAGING SYSTEM**

&lt;&gt;

For Reliable and/or Rapid Transfer of complex documents such as  
 FEMA ICS, Skywarn, CAP and Red Cross forms, Radiograms,  
 Lengthy Texts and Messages, Long Lists and Spreadsheets  
 Primarily Utilizing Acoustical Coupling.

&lt;&gt;

## ***The NBEMS Guide for Digital Dummies!*** **Simple step-by-step instructions with lots of illustrations!**

Version 7 – 9/1/14

&lt;&lt;&lt;&gt;&gt;&gt;

This guide is to help ensure uniformity, simplicity and success in Basic NBEMS communications primarily for FM emergency use. The methodology has been endorsed by many groups including radio clubs, EOCs and disaster relief groups. All expect to use complex documents and desire interoperability. These groups formed the PALM BEACH EMERGENCY MESSAGING ASSOCIATES, PBEMA, to promote Basic NBEMS interoperability. Basic NBEMS workshops have been attended by radio amateurs from Monroe through Brevard Counties... Florida's east coast. To reflect its growth and widespread acceptance, the coalition's name has changed. It's now FLEMA, FLORIDA EMERGENCY MESSAGING ASSOCIATES. (<http://qsl.net/k4wrc/PBC-BASIC-NBEMS.html>).

FLEMA's goal is to empower emergency communicators, even those with little technical background, to send & receive information reliably and rapidly. Our approach is to simplify and streamline the steps needed to get on the air with only NBEMS's FLdigi and FLmsg. For example, rather than looking at a bewildering array of a hundred digital mode variations, the focus is on just one digital mode known to be the most reliable with acoustical coupling... MT-63. This eliminates the need to purchase and learn about digital interfaces and special cables. This approach helps most people move up the operating learning curve rapidly and more easily maintain their critical basic skills.

PBC Basic NBEMS permits operation with almost all base stations or handhelds using a computer configured and setup according to this Guide. This portability is invaluable when operating from EOCs, Shelters, Points of Distribution, CERT Command Posts, NGO offices, and similar emergency/disaster locations and ensures interoperability.

&lt;&lt;&lt;&gt;&gt;&gt;

**For assistance setting audio levels or troubleshooting, contact these WRC Elmers,  
 And/or download the new supplementary guide :**

AJ1Q – Chris [chris\\_hite@bellsouth.net](mailto:chris_hite@bellsouth.net)  
 AF4RL – Rich [rich@lucibella.com](mailto:rich@lucibella.com) (Mac literate)  
 K4MGW – Marc [k4mgw@comcast.net](mailto:k4mgw@comcast.net)  
 K4WAG – David [david@theftcontrol.com](mailto:david@theftcontrol.com)  
 K4ZXR – Joel [e30racer116@gmail.com](mailto:e30racer116@gmail.com)  
 KC4WAM - BILL [kc4wam@gmail.com](mailto:kc4wam@gmail.com)  
 KS4NB – Larry [larry33414@aol.com](mailto:larry33414@aol.com)

**DOWNLOAD THE NEW CALIBRATION & TROUBLESHOOTING GUIDE FROM FLEMA's HOMEPAGE:**

<http://qsl.net/k4wrc/PBC-BASIC-NBEMS.html>

And/Or

For practice and on-the-air training join the:

**THE WRC's PBC NBEMS NET (Wellington)**

**TUESDAYS 7:30pm 147.285+ PL 103.5 <<<>>> ELMERS are usually available at 7PM**

**THE BRARA NBEMS NET (Boca Raton)**

**MONDAYS 8:00pm 145.290 PL110.9**

**THE KNIGHTS OF THE ROUND TABLE SIMPLEX NET (Broward)**

**1<sup>st</sup> & 3<sup>rd</sup> SATURDAY 10am 146.550**

&lt;&lt;&gt;&gt;

**This Guide was developed by the above Elmers and edited by Larry KS4NB.**

Copyright 2013-2014.

*This publication can only be reproduced in its ENTIRETY without permission and with due credit to the Wellington Radio Club.*

*Any original material can only be used or copied with written permission from the Wellington Radio Club.*

## Downloading NBEMS Files

Go to [www.w1hkj.com](http://www.w1hkj.com), the web site of the free, award winning software.

Look for the FLDIGI and FLMSG download page...

these are the only two files necessary for **basic** NBEMS operations to send & receive text, pre-formatted message forms and files containing lists, tables or spreadsheets. Only the latest, tested versions are available on that page.

Make sure to download only the versions for your operating system. Our experience is that the same steps apply to the nearly all recent versions of FLdigi and FLmsg.



## Program Installation

### FLDIGI

Click on fldigi-3.21.xx\_setup.exe where saved on your computer

(Will be different filename for Apple or Linux)

Follow prompts

You will be asked where to install, please use the default setting.

(NOTE: FLARQ will also be installed but is not used in Basic NBEMS.)

**FLMSG** – Same as above

**IMPORTANT NOTE:** Write down the folder location where you have saved FLMSG.

You will need that info during the FLdigi configuration process.

When finished, you should end up with shortcuts to each of the programs on your desktop.

Shortcuts can be moved to a different location at a later date if desired.



## BEFORE YOU CONTINUE TO THE CONFIGURATION PAGE, PLEASE READ THIS:

### USE ONLY THE SETTINGS SPECIFIED

Most of the settings used will be pre-set "default" settings. To many, there are a very confusing number of possible FLdigi settings. Many setting combinations will NOT allow you to be compatible with other stations. After you have gained a familiarity with NBEMS and its on-the-air behavior, there maybe other settings you may wish to change.

Example: The default configuration activates only the left computer speaker. For some, enabling the right speaker, or both, maybe be more convenient if you are right-handed. Also, earbud performance may be improved during transmit. Options are described at the end of the Guide.

**MAC USERS - May wish to read page 4 for added FLMSG info.**

# FLDIGI Configuration

This procedure will ensure that all stations using acoustical coupling have the same settings.

**Click on FLDIGI Shortcut on desktop... the config Wizard will appear.**

For now, only complete whatever Operator/Station info you know, then → SAVE+CLOSE

**Click "Configure" On FLDIGI Tool bar:**

**Click UI, General Tab**

Check all 4 circles under exit prompts

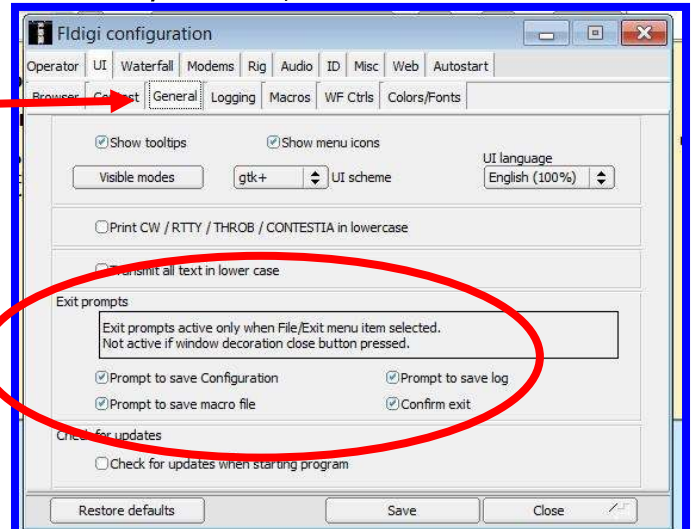
Check show tooltips

Check show menu icons

Leave all else at default

Click Save

**(Click "Save" anytime changes are made)**



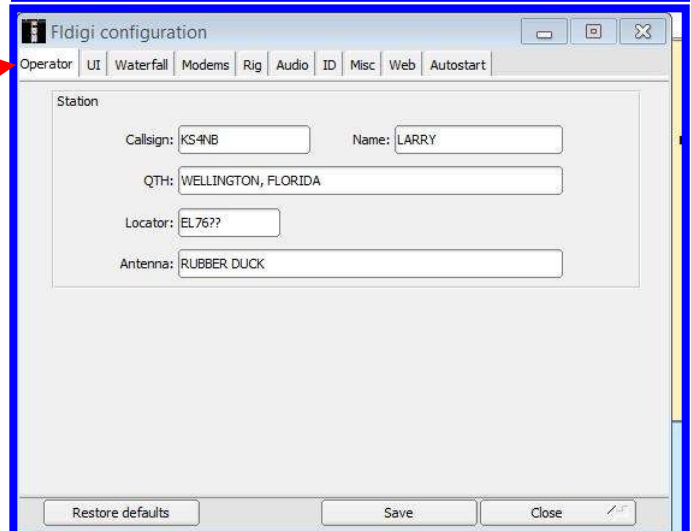
**Click Operator**

(Usually completed with the Wizard)

Fill all fields you can

(Look up location later on QRZ.COM)

Click save



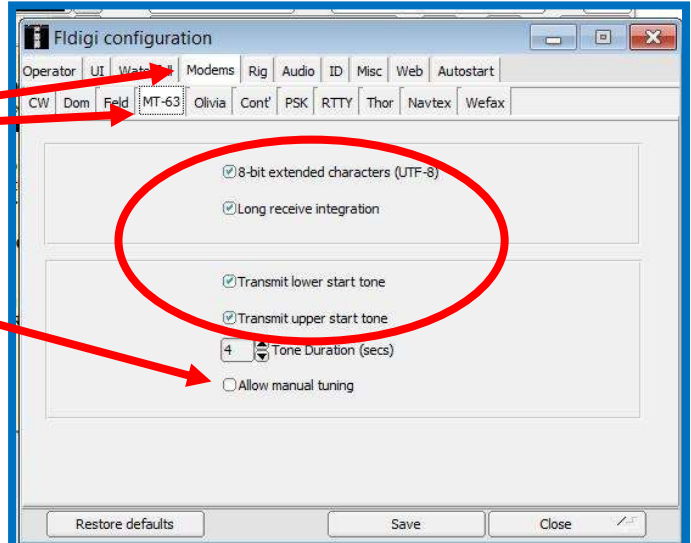
**IMPORTANT NOTE: The digital mode most often used on FM, and very frequently used on HF, is MT-63-2KL.**

**Click MODEMS, MT63 Tab**

Check first 4 selections

Uncheck Allow Manual Tuning

Save



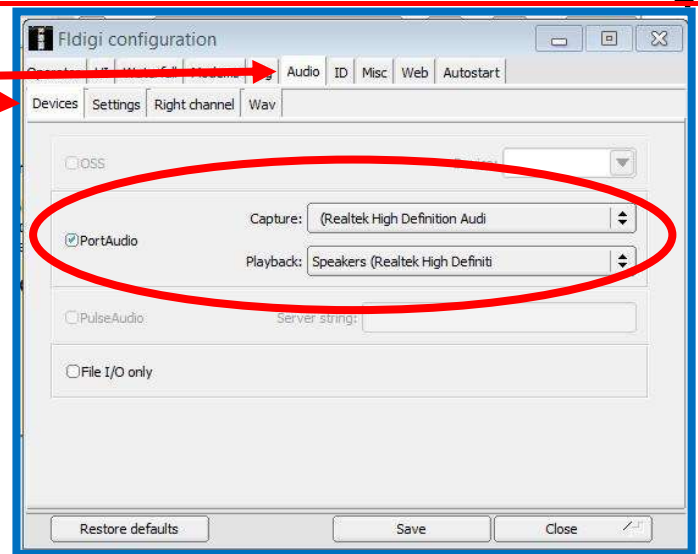
### Click **Audio**, Devices tab

Make sure port audio is checked

Make sure that your computer's mike and speakers are selected

Save

**NOTE:** Write down the *Capture* and *Playback* devices you have selected. That info will be used in the testing & calibration procedure.

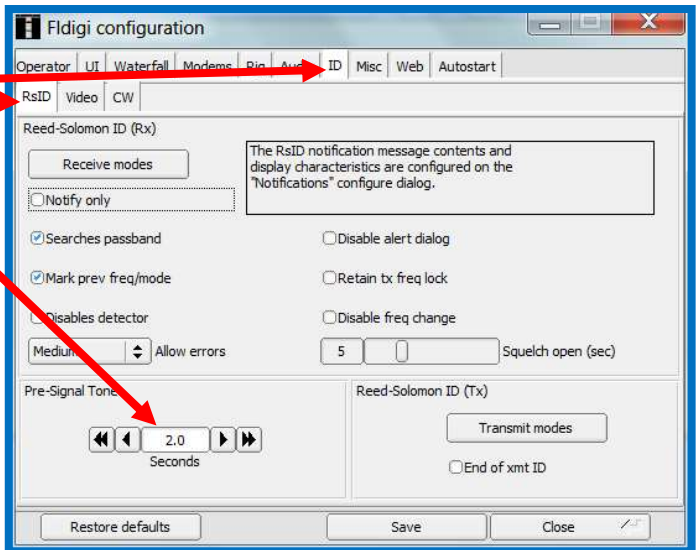


### Click **ID**, RsID tab

Set the Pre-Signal Tone to 2 seconds

Save

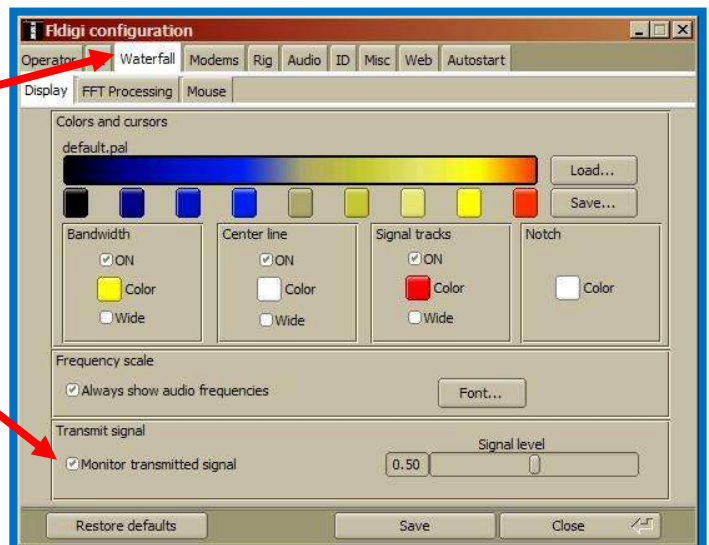
(Some of the unexpected benefits of the pre-signal tone were as an alert to remind operators to properly position mics/speakers, etc. and as a visual signal strength indicator to permit a quick radio volume adjustment).



### Click **Waterfall**, Display tab

Enable/click on Monitor transmitted signal in the Transmit signal bottom area.

Save



**== Many people have a problem with the next step. ==**

**== It's critical to Auto Receive. ==**

**== PLEASE... DOUBLE CHECK THE LOCATION OF FLMSG.EXE ==**

Click **Misc**, **NBEMS** Tab

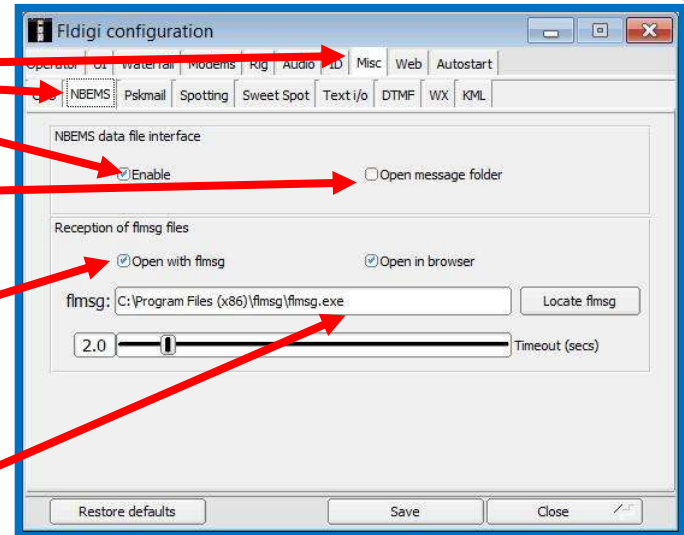
Check **Enable** in *NBEMS Data File Interface*

Uncheck **open message folder**

Save

Check **Open with FLMSG** in *Reception of messages*

Fill the "flmsg:" box by entering the location you wrote down earlier. You can also locate it by using the "Locate flmsg" button.



For **Windows 7** it is usually: C:\Program Files (x86)\flmsg-x.x.x\flmsg.exe (*x.x.x is your version*)

For **Windows XP** it is usually: C:\Program Files\flmsg-x.x.x\flmsg.exe

**Save** and then **close** the configuration window.

**IMPORTANT NOTE: IF YOU REPLACE FLMSG WITH A NEWER VERSION, YOU MUST RETURN TO THIS FLDIGI CONFIGURATION STEP AND RE-LOCATE THE *flmsg.exe* FILE!**

## ===== MAC USERS FLMSG PROCEDURE =====

For **Apple/Mac OS X** (From Rich, AF4RL):

Click on "Locate Message". A file browser is opened to the "Applications" folder.

Right click on the flmsg icon.

Select "Show Package Contents".

Double click "Contents".

Double click on "MacOS".

You will be viewing an icon labeled "flmsg".

Drag and drop the icon onto the "flmsg:" entry box and the value will be correctly entered.

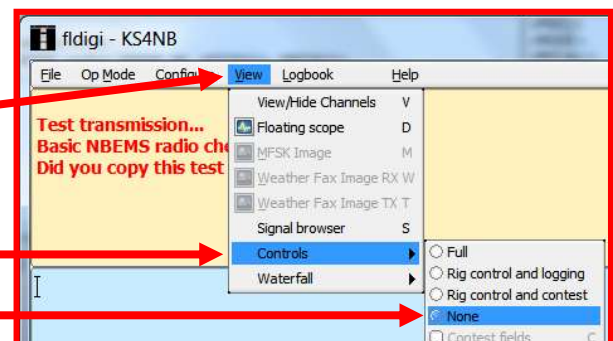
### **ON THE MAIN FLDIGI SCREEN:**

The following procedure removes the logging area and enlarges the receive window.

Click **View**

Select *Controls*

Check *None*



**WOW! You have completed the hardest steps in configuring FLdigi. Configuring FLmsg is next... it's a lot easier!**



## FLMSG Configuration

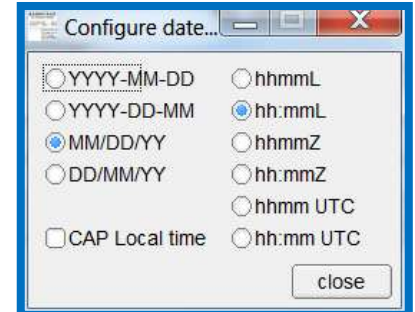
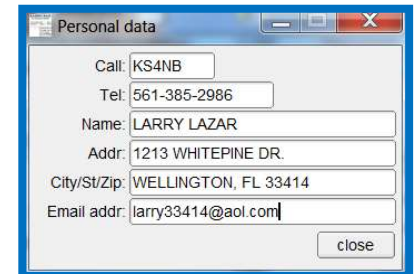
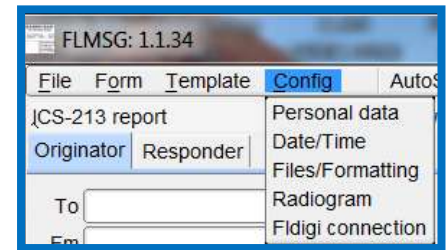
(When updating your FLmsg installation, be sure to go to the FLdigi configuration step on page 5).

Most of the traffic using Basic NBEMS on FM will be local. For that reason, most people elect to use local time. This also reduces confusion about dates because the Zulu date is often different than the local date.

If the FLmsg Configuration Wizard doesn't open automatically, click on "Config" and select the appropriate category.

### PERSONAL DATA

Your call sign is required. Depending upon your net protocol or your assignment, you may wish to add your "tactical call" such as "Wellington EOC-KS4NB".

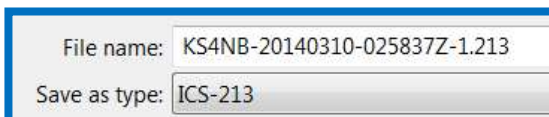


### DATE/TIME

Shown are the most common local time and date formats.

### FILES AND FORMATTING

When you are ready to transmit and click "AutoSend", you will be asked if you want to save the message. It is highly recommended having FLmsg automatically create the name. Below is the file name for KS4NB's first ICS-213 message. It is very logical and easy to decipher! For the same file name



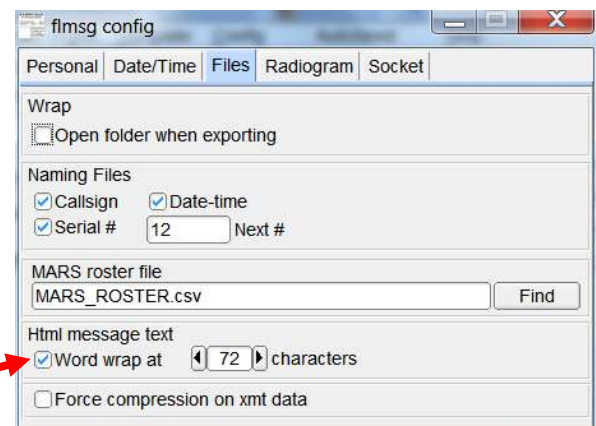
format, use the "Naming Files" selections shown.

### RADIOGRAMS and FLDIGI CONNECTION:

NO CHANGES. For now, use the default selections.

### MESSAGE DISPLAY IN YOUR BROWSER:

Make sure that the *Word Wrap* box is checked to properly receive & display a FLMSG message in the browser.



**Congratulations...**

**You have completed the initial steps in setting up PBC Basic NBEMS for FM and MT63 communications.**

**Now the computer and radio audio levels must be adjusted.**

**The quickest and best way to adjust is with another NBEMS user.**

**This Guide's cover page lists Elmers and how to contact them.**

**If you wish to do the preliminary setting right away, or are having problems receiving and transmitting, download the separate testing, calibrating & troubleshooting guide.**